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☐ 1. Document ID: US 6653465 B2, WO 200245744 A1, AU 200226019 A, US 20020137020 A1

L5: Entry 1 of 8

File: DWPI

Nov 25, 2003

DERWENT-ACC-NO: 2002-519642

DERWENT-WEEK: 200378

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TITLE: Novel nucleic acid encoding <u>Kaposi's</u> sarcoma-associated herpesvirus latency-associated nuclear antigen 2 polypeptide for inhibiting p53 mediated apoptosis of a cell

INVENTOR: CHANG, Y; MOORE, P S

PRIORITY-DATA: 2000US-0733728 (December 8, 2000)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 6653465 B2	November 25, 2003		000	C07H021/04
WO 200245744 A1	June 13, 2002	E	111	A61K039/12
AU 200226019 A	June 18, 2002		000	A61K039/12
US 20020137020 A1	September 26, 2002		000	C12Q001/70

INT-CL (IPC): A61 K 39/12; A61 K 39/245; C07 H 21/04; C12 N 5/06; C12 N 7/00; C12 P 21/02; C12 P 21/06; C12 Q 1/70

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWC	Draws De

Document ID: US 20030078405 A1, WO 200035937 A1, AU 200031240 A, EP 1140970 A1, JP 2002532083 W

L5: Entry 2 of 8

File: DWPI

Apr 24, 2003

DERWENT-ACC-NO: 2000-431566

DERWENT-WEEK: 200330

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TITLE: Forty seven human nucleic acids encoding secreted proteins, useful in the treatment, prevention and diagnosis of cancers, disorders of the immune system, angiogenesis disorders, neurological diseases and hyperproliferative disorders

INVENTOR: DUAN, D R; EBNER, R; ENDRESS, G A; FLORENCE, K; LAFLEUR, D W; \underline{MOORE} , \underline{P} A; NI, J; OLSEN, H S; ROSEN, C A; RUBEN, S M; SHI, Y; SOPPET, D R; \underline{DUAN} , R

D ; FLORENCE, K A

PRIORITY-DATA: 1998US-113006P (December 18, 1998), 1998US-112809P (December 17, 1998), 2000US-0591316 (June 9, 2000), 2001US-0895298 (July 2, 2001)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 20030078405 A1	April 24, 2003		000	C07H021/04
WO 200035937 A1	June 22, 2000	E	559	С07Н021/04
AU 200031240 A	July 3, 2000		000	
EP 1140970 A1	October 10, 2001	E	000	C07H021/04
JP 2002532083 W	October 2, 2002		570	C12N015/09

INT-CL (IPC): $\underline{A61}$ \underline{K} $\underline{31/711}$; $\underline{A61}$ \underline{K} $\underline{38/00}$; $\underline{A61}$ \underline{K} $\underline{48/00}$; $\underline{A61}$ \underline{P} $\underline{1/00}$; $\underline{A61}$ \underline{P} $\underline{1/04}$; $\underline{A61}$ \underline{P} 3/02; A61 P 25/00; A61 P 25/14; A61 P 25/16; A61 P 25/18; A61 P 25/28; A61 P 29/00; A61 P 35/00; A61 P 37/00; A61 P 43/00; C07 H 21/04; C07 K 14/435; C07 K 14/47; C07 $\underline{K} \ \underline{16/18}; \ \underline{C12} \ \underline{N} \ \underline{1/15}; \ \underline{C12} \ \underline{N} \ \underline{1/19}; \ \underline{C12} \ \underline{N} \ \underline{1/21}; \ \underline{C12} \ \underline{N} \ \underline{5/06}; \ \underline{C12} \ \underline{N} \ \underline{5/10}; \ \underline{C12} \ \underline{N} \ \underline{15/09};$ $\underline{\text{C12}} \ \underline{\text{N}} \ \underline{\text{15/12}}; \ \underline{\text{C12}} \ \underline{\text{N}} \ \underline{\text{15/64}}; \ \underline{\text{C12}} \ \underline{\text{P}} \ \underline{\text{21/02}}; \ \underline{\text{C12}} \ \underline{\text{Q}} \ \underline{\text{1/02}}; \ \underline{\text{G01}} \ \underline{\text{N}} \ \underline{\text{33/15}}; \ \underline{\text{G01}} \ \underline{\text{N}} \ \underline{\text{33/50}}$

Full Title	Citation	Front	Review	Classification	Date	Reference	Clain	ns KWIC Draw, De

☐ 3. Document ID: US 5849564 A

L5: Entry 3 of 8

File: DWPI

Dec 15, 1998

DERWENT-ACC-NO: 1999-069741

DERWENT-WEEK: 199906

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TITLE: Kaposi's sarcoma-associated herpes virus nucleic acid - encodes

di:hydro:folate reductase and is useful for treatment, prophylaxis or diagnosis of

Kaposi's sarcoma

INVENTOR: BOHENZKY, R A; CHANG, Y; EDELMAN, I S; MOORE, P S; RUSSO, J J

PRIORITY-DATA: 1996US-0770379 (November 29, 1996)

PATENT-FAMILY:

PUB-DATE LANGUAGE PAGES MAIN-IPC PUB-NO US 5849564 A December 15, 1998 109 C07H021/04

INT-CL (IPC): C07 H 21/04; C12 N 1/20; C12 N 15/63

Full Title Citation F	ront Review Classificatio	n Date Reference	Claims KWC	Draw, De
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4. Document	t ID: US 6605425 B	1, WO 9811132 A1, EP	932621 A1	
L5: Entry 4 of 8		File: DWPI	Aug 12,	2003

DERWENT-ACC-NO: 1998-207326

DERWENT-WEEK: 200355

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Page 3 of 6

TITLE: Immunogenic determinant for use in diagnosis of Kaposi's sarcoma - consists of or contains sequence of carboxy terminal end of Kaposi's sarcoma-related herpes virus open reading frame 65

INVENTOR: CHANG, Y; MOORE, P S ; SCHULZ, T F ; SIMPSON, G R

PRIORITY-DATA: 1996GB-0018890 (September 10, 1996)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 6605425 B1	August 12, 2003		000	C12Q001/70
WO 9811132 A1	March 19, 1998	E	025	C07K014/03
EP 932621 A1	August 4, 1999	E	000	C07K014/03

INT-CL (IPC): A61 K 39/245; C07 K 7/00; C07 K 14/03; C12 Q 1/70; G01 N 33/53

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		5.	Document ID:	WO 9804576	Al, Al	J 9 <mark>74047</mark> 8	3 A, US 583	31064 A, U	Š 5853734	A, US
	5854	398	A, US 5854418	A, US 585922	25 A, U	S 586150	0 A, US 58	63787 A, E	P 934333 <i>A</i>	A1, US

Full Title Citation Front Review Classification Date Reference Communication Claims KWC Draw, De

L5: Entry 5 of 8

File: DWPI

Feb 5, 1998

DERWENT-ACC-NO: 1998-130615

DERWENT-WEEK: 200305

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5948676 A, US 6348586 B1, JP 2002513274 W

TITLE: New nucleic acid encoding Kaposi's sarcoma associated herpes virus proteins - useful for, e.g. detecting levels of HHV8 in, and preparation of vaccines for treatment of, HIV patients

INVENTOR: BOHENZKY, R A; CHANG, Y; EDELMAN, I S; MOORE, P S; RUSSO, J J

PRIORITY-DATA: 1996US-0757669 (November 29, 1996), 1996US-0686243 (July 25, 1996), 1996US-0686349 (July 25, 1996), 1996US-0686350 (July 25, 1996), 1996US-0687253 (July 25, 1996), 1996US-0708678 (September 5, 1996), 1996US-0728323 (October 10, 1996), 1996US-0747887 (November 13, 1996), 1996US-0748640 (November 13, 1996), 1996US-0729615 (July 25, 1996), 1999US-0230371 (November 17, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 9804576 A1	February 5, 1998	E	230	C07H021/04
AU 9740478 A	February 20, 1998		000	C07H021/04
US 5831064 A	November 3, 1998		000	C07H021/04
US 5853734 A	December 29, 1998		000	A61K034/12
<u>US 5854398 A</u>	December 29, 1998		000	C07K016/08
US 5854418 A	December 29, 1998		000	A61K039/245
US 5859225 A	January 12, 1999		000	С07Н021/04
US 5861500 A	January 19, 1999		000	A61K039/245
US 5863787 A	January 26, 1999		000	C07H021/04
EP 934333 A1	August 11, 1999	E	000	C07H021/04

US 5948676 A	September 7, 1999	000	C12N015/00
US 6348586 B1	February 19, 2002	000	A61K039/245
JP 2002513274 W	May 8, 2002	202	C12N015/09

INT-CL (IPC): A01 K 67/027; A61 K 34/12; A61 K 39/245; A61 K 39/395; A61 P 31/22; A61 P 35/00; C07 H 21/04; C07 K 14/03; C07 K 16/08; C07 K 19/00; C12 N 1/15; C12 N 1/19; C12 N 1/21; C12 N 7/00; C12 N 7/02; C12 N 15/00; C12 N 15/09; C12 N 15/10; C12 N 15/38; C12 P 19/34; C12 P 21/08; C12 Q 1/68; G01 N 33/50; G01 N 33/569; C12 N 15/09; C12 R 1:93

Full | Title | Citation | Front | Review | Classification | Date | Reference | 30,000 | 10,000 | 10,000 | Claims | KWIC | Draw, De

☐ 6. Document ID: WO 9727208 A1, AU 9717571 A, EP 891374 A1, JP 2000503213 W, MX 9805961 A1, US 6183751 B1, AU 731302 B

L5: Entry 6 of 8

File: DWPI

Jul 31, 1997

DERWENT-ACC-NO: 1997-393610

DERWENT-WEEK: 200305

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TITLE: Isolated nucleic acid encoding polypeptide of herpes virus associated with ${\tt Kaposi}$ sarcoma – useful for treatment, prevention and diagnosis of ${\tt Kaposi}$ sarcoma

INVENTOR: BOHENZKY, R A; CHANG, Y; EDELMAN, I S; MOORE, P S; RUSSO, J J

PRIORITY-DATA: 1996US-0757669 (November 29, 1996), 1996US-0592963 (January 29, 1996), 1994US-0292365 (August 18, 1994), 1994US-0343101 (November 21, 1994), 1995US-0420235 (April 11, 1995), 1995WO-US10194 (August 11, 1995), 1995WO-US15138 (November 21, 1995)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 9727208 A1	July 31, 1997	E	226	C07H021/04
AU 9717571 A	August 20, 1997		000	C07H021/04
EP 891374 A1	January 20, 1999	E	000	C07H021/04
JP 2000503213 W	March 21, 2000		200	C12N015/09
MX 9805961 A1	June 1, 1999		000	С07Н021/04
US 6183751 B1	February 6, 2001		000	A61K039/12
AU 731302 B	March 29, 2001		000	C07H021/04

INT-CL (IPC): A01 K 67/027; A61 K 31/7088; A61 K 39/00; A61 K 39/12; A61 K 39/245; A61 K 39/395; A61 K 45/00; A61 K 48/00; A61 P 31/22; A61 P 35/00; C07 H 21/04; C07 K 16/40; C12 N 1/21; C12 N 5/00; C12 N 5/10; C12 N 9/12; C12 N 9/16; C12 N 9/24; C12 N 9/88; C12 N 15/02; C12 N 15/09; C12 P 1/00; C12 P 21/02; C12 P 21/08; C12 Q 1/68; C12 Q 1/70; G01 N 33/53; G01 N 33/566; G01 N 33/569; C12 N 15/09; C12 R 1:92

Full Title Citation Front Review Classification Date Reference

7. Document ID: WO 9615779 A1, AU 9643670 A

L5: Entry 7 of 8

File: DWPI

May 30, 1996

DERWENT-ACC-NO: 1996-268320

DERWENT-WEEK: 200305

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TITLE: Herpes virus associated with Kaposi's sarcoma - also definitive DNA

sequences, useful for diagnosis of and to develop prods. for treatment of Kaposi's

sarcoma

INVENTOR: CHANG, Y; MOORE, P S

PRIORITY-DATA: 1995US-0420235 (April 11, 1995), 1994US-0343101 (November 21, 1994)

PATENT-FAMILY:

 PUB-NO
 PUB-DATE
 LANGUAGE
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 MAIN-IPC

 WO 9615779 A1
 May 30, 1996
 E
 277
 A61K031/00

 AU 9643670 A
 June 17, 1996
 000
 A61K031/00

INT-CL (IPC): A61 K 31/00; A61 K 35/00

Full Title Citation	Front Review	Classification	Date Reference	Claims KW0	Draw De
<u> </u>					

8. Document ID: WO 9606159 A1, AU 9533210 A, EP 804547 A1, US 5801042 A, JP 10508461 W, US 5830759 A, AU 700913 B, US 6093550 A, US 6150093 A, US 6500663 B1

L5: Entry 8 of 8

File: DWPI

Feb 29, 1996

DERWENT-ACC-NO: 1996-151362

DERWENT-WEEK: 200305

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TITLE: Herpes:virus DNA associated with Kaposi's sarcoma - also associated vectors

and proteins, used in detection and vaccination.

INVENTOR: CHANG, Y; MOORE, P S

PRIORITY-DATA: 1995US-0420235 (April 11, 1995), 1994US-0292365 (August 18, 1994), 1994US-0343101 (November 21, 1994), 1998US-0183688 (October 30, 1998), 1997US-0793624 (February 18, 1997), 2000US-0519489 (March 6, 2000)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 9606159 A1	February 29, 1996	E	305	C12N001/21
AU 9533210 A	March 14, 1996		000	C12N001/21
EP 804547 A1	November 5, 1997	E	000	C12N001/21
US 5801042 A	September 1, 1998		000	C12N001/21
JP 10508461 W	August 25, 1998		270	C12N015/09
US 5830759 A	November 3, 1998		000	C07H021/00
AU 700913 B	January 14, 1999		000	C12N001/21
US 6093550 A	July 25, 2000		000	G01N033/53
US 6150093 A	November 21, 2000		000	C12Q001/68
US 6500663 B1	December 31, 2002		000	C12N007/00

INT-CL (IPC): A01 K 67/027; A61 K 39/245; A61 K 39/395; A61 K 48/00; C07 H 21/00;

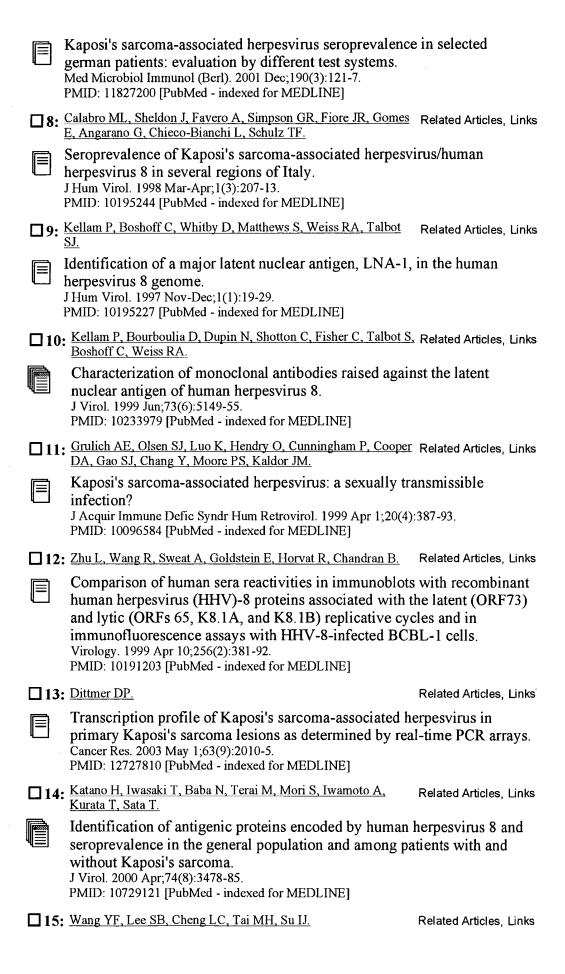
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Clinical Que LinkOut Cubby Related R		and is a J Virol. 1	sarcoma-associated herpesvirus (human herpesvirus 8) and is a component of the latency-associated nuclear and J Virol. 1997 Aug;71(8):5915-21. PMID: 9223481 [PubMed - indexed for MEDLINE]								
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i livacy i oi	icy	antigen J Clin Inv	of the Kap est. 1997 No	osi's sarcon v 15;100(10):	oding the major na-associated h 2606-10. for MEDLINE]	_		uclear			
		□ 5: Gao SJ, Z	hang YJ, De	ng JH, Rabkir	n CS, Flore O, Jer	ison HB.	Related Ar	ticles, Links			
		(Human repertoingenotyp J Infect D	herpesvirure of viral ges. is. 1999 Nov	us 8) latent : genotypes a r;180(5):1466	Caposi's sarcom nuclear antiger nd dual infecti -76. Erratum in: J	n: evidence on with dif Infect Dis 19	for a large ferent vira	e .l			
		PMID: 10	515805 [Pub	Med - indexe	d for MEDLINE]						
		☐ 6: Komatsu			•	•		ticles, Links			
		antigen. Viral Imn	nunol. 2001;	14(4):311-7. R	ated herpesviru deview. d for MEDLINE]	·	ssociated i	nuclear			
		☐ 7: Preiser W	, Szep NI, L	ang D, Doerr	HW, Rabenau HF	, ∸	Related Ar	ticles, Links			



	Detection of serum antibodies to three different rechuman herpesvirus 8 by immunoblotting: seropreva Taiwan. Clin Chim Acta. 2002 Jun;320(1-2):37-42. PMID: 11983198 [PubMed - indexed for MEDLINE]			_	of
□16:	Juhasz A, Konya J, Beck Z, Remenyik E, Veress G, Begany Medgyessy I, Hunyadi J, Gergely L.	Α,	Related Ar	ticles,	Links
	HHV-8 ELISA based on a one-step affinity capture antigen. J Virol Methods. 2001 May;94(1-2):163-72. PMID: 11337051 [PubMed - indexed for MEDLINE]	e of b	piotinylat	ed K	3.1
□17:	Katano H, Sato Y, Sata T.		Related Ar	ticles,	Links
	Expression of p53 and human herpesvirus-8 (HHV associated nuclear antigen with inhibition of apopte associated malignancies. Cancer. 2001 Dec 15;92(12):3076-84. PMID: 11753987 [PubMed - indexed for MEDLINE]				y-
□18:	Zhang YJ, Deng JH, Rabkin C, Gao SJ.		Related Ar	ticles,	Links
	Hot-spot variations of Kaposi's sarcoma-associated nuclear antigen and application in genotyping by P J Gen Virol. 2000 Aug;81(Pt 8):2049-58. PMID: 10900044 [PubMed - indexed for MEDLINE]	_		atent	
□19:	Wilkinson D, Sheldon J, Gilks CF, Schulz TF.		Related Ar	ticles,	Links
	Prevalence of infection with human herpesvirus 8/I herpesvirus in rural South Africa. S Afr Med J. 1999 May;89(5):554-7. PMID: 10416461 [PubMed - indexed for MEDLINE]	Kapo	si's sarco	oma	
□20:	Simpson GR, Schulz TF, Whitby D, Cook PM, Boshoff C, Rainbow L, Howard MR, Gao SJ, Bohenzky RA, Simmonds Lee C, de Ruiter A, Hatzakis A, Tedder RS, Weller IV, Weis RA, Moore PS.	<u>P</u> ,	Related Ar	ticles,	Links
	Prevalence of Kaposi's sarcoma associated herpesv				
	measured by antibodies to recombinant capsid prot immunofluorescence antigen. Lancet. 1996 Oct 26;348(9035):1133-8. PMID: 8888167 [PubMed - indexed for MEDLINE]	ein a	ind latent		
Displa	Show: 20 Sort	Se	nd to To	ext	
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Jun 1 2004 06:47:16

- I/3 ANSWER 23 OF 24 MEDLINE on STN
- AN 97366651 MEDLINE
- DN PubMed ID: 9223481
- TI The 222- to 234-kilodalton latent nuclear protein (LNA) of **Kaposi**'s sarcoma-associated herpesvirus (human herpesvirus 8) is encoded by
 orf73 and is a component of the latency-associated nuclear antigen.
- AU Rainbow L; Platt G M; Simpson G R; Sarid R; Gao S J; Stoiber H; Herrington C S; Moore P S; Schulz T F
- CS Department of Medical Microbiology and Genitourinary Medicine, The University of Liverpool, United Kingdom.
- NC U64CCU210852
- SO Journal of virology, (1997 Aug) 71 (8) 5915-21. Journal code: 0113724. ISSN: 0022-538X.
- CY United States
- DT Journal; Article; (JOURNAL ARTICLE)
- LA English
- FS Priority Journals; AIDS
- EM 199707
- ED Entered STN: 19970812
- Last Updated on STN: 19980206 Entered Medline: 19970731
- Kaposi's sarcoma (KS)-associated herpesvirus or human AΒ herpesvirus 8 (KSHV/HHV8) is the likely cause of KS and primary effusion lymphomas or body cavity-based lymphomas (BCBLs). A latency-associated nuclear immunofluorescence antigen (LANA) (D. H. Kedes, E. Operskalski, M. Busch, R. Kohn, J. Flood, and D. Ganem, Nat. 2:918-924, 1996; S. J. Gao, L. Kingsley, M. Li, W. Zheng, C. Parravicini, J. Ziegler, R. Newton, C. R. Rinaldo, A. Saah, J. Phair, R. Detels, Y. Chang, and P. S. Moore, Nat. Med. 2:925-928, 1996) and a 222- to 234-kDa nuclear protein (LNA) (S. J. Gao, L. Kingsley, D. R. Hoover, T. J. Spira, C. R. Rinaldo, A. Saah, J. Phair, R. Detels, P. Parry, Y. Chang, and P. S. Moore, N. Engl. J. Med. 335:233-241, 1996) have previously been described in BCBL cell lines by immunofluorescence and Western blotting techniques, respectively. To identify the viral gene(s) encoding this antigen(s) we screened a cDNA library from HBL-6 cells, a B-cell lymphoma cell line persistently infected with KSHV/HHV8, with KS patient sera. One set of positive clones contained the 3' end of orf73, as well as the complete orf72 and orfK13, and another set contained the 5' end of orf73. Comparison of cDNA sequences with the KSHV/HHV8 genomic sequence revealed a splice event, occurring upstream of orf73. Immunoaffinity purified antibodies to a recombinant carboxy-terminal fragment of the orf73-encoded protein showed the characteristic speckled nuclear immunofluorescence pattern of LANA and reacted with the 222- to 234-kDa LNA on Western blots. Expression of full-length orf73 in bacteria and COS7 cells reproduced the LNA banding pattern. Immunohistochemistry on cases of nodular KS revealed that orf73/LNA is expressed in the nucleus of KS spindle cells. These findings demonstrate that orf73 encodes the 222- to 234-kDa LNA, is a component of LANA, and is expressed in KS tumor cells.
- CT Check Tags: Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S. Animals
 Antigens, Nuclear
 Blotting, Western

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L3
     ANSWER 8 OF 24
                        MEDLINE on STN
ΑN
     2000219626
                    MEDLINE
     PubMed ID: 10753712
DN
     Expression and localization of human herpesvirus 8-encoded proteins in
ΤI
     primary effusion lymphoma, Kaposi's sarcoma, and multicentric
     Castleman's disease.
     Katano H; Sato Y; Kurata T; Mori S; Sata T
ΑU
     Department of Pathology, National Institute of Infectious Diseases,
CS
     University of Tokyo, Japan.
     Virology, (2000 Apr 10) 269 (2) 335-44.
SO
     Journal code: 0110674. ISSN: 0042-6822.
CY
     United States
     Journal; Article; (JOURNAL ARTICLE)
DT
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     Priority Journals; AIDS
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     Entered STN: 20000518
     Last Updated on STN: 20020813
     Entered Medline: 20000505
     To investigate the expression of human herpesvirus 8 (HHV8)-encoded
AΒ
     proteins in the cells of primary effusion lymphoma (PEL), Kaposi
     's sarcoma (KS) and multicentric Castleman's disease (MCD), nine rabbit
     polyclonal antibodies to K2, ORF26, K8, K8.1, K10, K11, ORF59,
     ORF65, and ORF73 were developed. Western blot analysis in PEL cell lines
     (TY-1 and BCBL-1) revealed that the expression of these proteins, except
     ORF73 (LANA), was induced by tetradecanoylphorbol acetate (TPA)
     treatment, indicating that these proteins are lytic proteins.
     Immunofluorescence assay in primary PEL cells derived from pericardial
     effusion and PEL cell lines with and without TPA treatment revealed that
     primary PEL cells exhibited the same expression pattern as noninduced PEL
     cell lines, and the treatment changed localization of K8, ORF59, and ORF65
     proteins. Immunohistochemistry revealed that 90% of KS spindle cells
     expressed the ORF73 protein, whereas a small population of KS cells
     expressed K8, K10, K11, ORF59, and ORF65 proteins. In MCD, ORF73, ORF59,
     K8, K2, and K10 proteins were expressed in the cells at mantle zone of the
     follicle. These data indicate that KS and PEL cells expressed
     predominantly latent proteins, whereas MCD expressed both latent and lytic
     proteins, suggesting that HHV8 plays a different role in the pathogenesis
     of HHV8-associated diseases.
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CT
     Check Tags: Human; Support, Non-U.S. Gov't
      Animals
       *Antibodies, Viral: IM, immunology
      Antigens, Viral: IM, immunology
      Blotting, Western
      Carrier Proteins: IM, immunology
        Fluorescent Antibody Technique
      Giant Lymph Node Hyperplasia: IM, immunology
     *Giant Lymph Node Hyperplasia: PA, pathology
      Glycoproteins: IM, immunology
     *Herpesvirus 8, Human: IM, immunology
      Lymphoma: IM, immunology
     *Lymphoma: PA, pathology
      Nuclear Proteins: IM, immunology
        Sarcoma, Kaposi: IM, immunology
       *Sarcoma, Kaposi: PA, pathology
      Tumor Cells, Cultured
      Viral Proteins: IM, immunology
CN
     0 (Antibodies, Viral); 0 (Antigens, Viral); 0 (Carrier
```

Proteins); 0 (Glycoproteins); 0 (K8 protein, Human herpesvirus 8); 0 (K8.1 protein, Human herpesvirus 8); 0 (Nuclear Proteins); 0 (ORF59 protein, Human herpesvirus 8); 0 (ORF65 protein, human herpesvirus 8); 0 (Viral Proteins); 0 (latency-associated nuclear antigen)

- L3 ANSWER 9 OF 24 MEDLINE on STN
- AN 2000204464 MEDLINE
- DN PubMed ID: 10738143
- TI Detection of human herpesvirus 8 DNA and **antibodies** to latent nuclear and lytic-phase antigens in serial samples from aids patients with **Kaposi'**s sarcoma.
- AU Camera Pierrotti L; Masami Sumita L; Santos Freire W; Hehl Caiaffa Filho H; Akico Ueda Fick de Souza V
- CS Departamento de Doencas Infecciosas and Casa da AIDS, Fundacao Zerbini, Faculdade de Medicina da Universidade de Sao Paulo, Sao Paulo, Brazil.
- SO Journal of clinical virology: official publication of the Pan American Society for Clinical Virology, (2000 May) 16 (3) 247-51.

 Journal code: 9815671. ISSN: 1386-6532.
- CY Netherlands
- DT Journal; Article; (JOURNAL ARTICLE)
- LA English
- FS Priority Journals; AIDS
- EM 200005
- ED Entered STN: 20000525 Last Updated on STN: 20000525 Entered Medline: 20000518
- BACKGROUND: human herpesvirus 8 (HHV-8) have recently implicated in the AΒ etiology of Kaposi's sarcoma (KS), but the pathophysiologic and immunologic interactions between HHV-8 and the human host are incompletely understood. OBJECTIVE: this paper intends to present partial results of a follow-up study of KS patients, designed to investigate HHV-8 viremia and antibody response. METHODS: ninety-six paired serial samples (PBMCs and sera) were obtained from 12 aids patients with KS who received HAART prior or just after entry in the study. HHV-8 DNA was detected by nested-PCR and antibodies to HHV-8 latent nuclear antigen (LANA) and lytic antigen by immunofluorescence assay (IFA). RESULTS: HHV-8 DNA was detected in 33.3% of the first PBMC samples. Among the eight PCR negative patients, four presented positive samples during the follow-up and four remained negative. Five patients had intermittent viremia. Fifteen of the 96 PBMC samples were PCR positive (15.6%). Four of 39 samples (10.2%) from patients classified as stadio II and 11 of the 53 samples (20.7%) from patients in stadio IV were PCR positive (P=0.2). Six patients (50%) had anti-LANA antibodies at the entry in the study. Among the six seronegative patients, two seroconverted 2 months later and four patients remained seronegative during the 5-8 months of follow-up. All patients had anti-lytic antibodies since the first sample. CONCLUSION: the presence of $\mbox{\sc HHV-8}$ viremia could be related to the severity of KS and could be intermittent even under HAART. A longer follow-up is needed to confirm these results.
- CT Check Tags: Human; Male
 *AIDS-Related Opportunistic Infections: VI, virology
 Adult

AN

2000169047

MEDLINE

```
L6
     ANSWER 1 OF 4
                       MEDLINE on STN
AN
     2000413752
                    MEDLINE
DN
     PubMed ID: 10882613
ΤI
     Evaluation of the latency-associated nuclear antigen (ORF73) of
     Kaposi's sarcoma-associated herpesvirus by peptide mapping and
     bacterially expressed recombinant western blot assay.
ΑU
     Olsen S J; Sarid R; Chang Y; Moore P S
     Division of Baterial and Mycotic Diseases, Centers for Disease COntrol and
CS
     Prevention, Atlanta, GA 30333, USA.. sco2@cdc.gov
     Journal of infectious diseases, (2000 Jul) 182 (1) 306-10.
SO
     Journal code: 0413675. ISSN: 0022-1899.
CY
     United States
     Journal; Article; (JOURNAL ARTICLE)
DT
LA
     English
     Abridged Index Medicus Journals; Priority Journals; AIDS
FS
     200008
EΜ
     Entered STN: 20000907
ED
     Last Updated on STN: 20030105
     Entered Medline: 20000828
     Kaposi's sarcoma (KS)-associated herpesvirus open-reading frame
AΒ
     (ORF) 73 encodes a latency-associated nuclear antigen (LANA)
     that is the basis for several serologic assays. Immunoreactive epitopes
     were searched for by peptide mapping, and 171 cleavable, biotinylated
     17-mer peptides offset by 5 residues were synthesized and screened with
     human serum samples by ELISA. The initial screen, which used highly
     reactive serum diluted 1:500, identified 38 immunoreactive peptides.
     These were subsequently tested on additional serum samples diluted 1:40.
     Thirteen peptides were more reactive with serum samples from patients with
     KS than with control serum samples. No single epitope was recognized by
     most KS patient serum samples. Combined use of these peptides did not
     increase test sensitivity to that of current indirect immunofluorescence
     assays for LANA (80%-90%). For comparison, full-length ORF73
     was expressed in bacteria and analyzed by Western blot. The overall
     sensitivity was 67% (range, 100% among US patients with classic KS to 52%
     among Italian patients with classic KS). These studies suggest that
     LANA immunoreactivity may be due to variations in patient response
     or conformational epitopes.
     Check Tags: Human; In Vitro
      Blotting, Western
      Epitope Mapping
      Evaluation Studies
      Herpesviridae Infections: DI, diagnosis
      Herpesvirus 8, Human: GE, genetics
      Herpesvirus 8, Human: IM, immunology
     *Herpesvirus 8, Human: IP, isolation & purification
     *Nuclear Proteins: AN, analysis
      Nuclear Proteins: BL, blood
      Nuclear Proteins: GE, genetics
      Nuclear Proteins: IM, immunology
      Peptide Mapping
      Recombinant Proteins: AN, analysis
        Sarcoma, Kaposi: BL, blood
       *Sarcoma, Kaposi: DI, diagnosis
        Sarcoma, Kaposi: IM, immunology
        Sarcoma, Kaposi: VI, virology
CN
     0 (Nuclear Proteins); 0 (Recombinant Proteins); 0 (latency-associated
    nuclear antigen)
    ANSWER 2 OF 4
                      MEDLINE on STN
1.6
```

DN PubMed ID: 10702388 Differential viral protein expression in Kaposi's TΙ sarcoma-associated herpesvirus-infected diseases: Kaposi's sarcoma, primary effusion lymphoma, and multicentric Castleman's disease. Parravicini C; Chandran B; Corbellino M; Berti E; Paulli M; Moore P S; ΑU Department of Pathology, College of Physicians and Surgeons, Columbia CS University, New York, New York 10032, USA. NC CA67391 (NCI) CA75911 (NCI) CA82056 (NCI) American journal of pathology, (2000 Mar) 156 (3) 743-9. SO Journal code: 0370502. ISSN: 0002-9440. CY United States Journal; Article; (JOURNAL ARTICLE) DTLΑ English Abridged Index Medicus Journals; Priority Journals; AIDS FS ΕM 200003 ED Entered STN: 20000330 Last Updated on STN: 20000330 Entered Medline: 20000323 Kaposi's sarcoma (KS)-associated herpesvirus (KSHV) is linked to AB KS, primary effusion lymphomas (PEL), and a subset of multicentric Castleman's disease (MCD). Transcript mapping studies using PEL cell lines have allowed preliminary classification of viral gene expression into constitutive (class I) and inducible (class II/III) categories. determine whether viral gene expression differs in vivo, we examined tissue sections of KSHV-infected disorders, using specific antibodies against proteins that are representative of the different expression classes of KSHV genes. ORF73/LANA appears to be a surrogate marker for KSHV infection because it is constitutively expressed in vitro and in vivo in all KSHV-infected cells. Expression of vIRF1, vIL6, and PF-8 proteins in the infected B cells of MCD lymph nodes reproduces the expression pattern observed in TPA-stimulated KSHV-infected B-cell lines. In contrast, the protein expression of the inducible viral genes that we tested in KS and PEL biopsies is restricted to PF-8 and vIL6, respectively. The tightly restricted expression of KSHV proteins in vivo differs from the dysregulated expression of inducible KSHV genes in vitro and suggests that viral gene expression in KSHV-infected cell lines does not accurately reflect what occurs in diseased tissues. These differences may be related to either cell-specific or immune restriction of viral replication. CTCheck Tags: Human; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S. Fluorescent Antibody Technique, Indirect Gene Expression Genes, Viral Giant Lymph Node Hyperplasia: ME, metabolism Giant Lymph Node Hyperplasia: PA, pathology *Giant Lymph Node Hyperplasia: VI, virology *Herpesvirus 8, Human: GE, genetics Herpesvirus 8, Human: IP, isolation & purification Lymph Nodes: PA, pathology

Lymph Nodes: PA, pathology
Lymph Nodes: VI, virology
Lymphoma, B-Cell: ME, metabolism
Lymphoma, B-Cell: PA, pathology
*Lymphoma, B-Cell: VI, virology
Sarcoma, Kaposi: ME, metabolism
Sarcoma, Kaposi: PA, pathology
*Sarcoma, Kaposi: VI, virology
Skin Neoplasms: ME, metabolism
Skin Neoplasms: PA, pathology
*Skin Neoplasms: PA, pathology
*Skin Neoplasms: VI, virology

Tumor Cells, Cultured *Viral Proteins: ME, metabolism CN 0 (Viral Proteins) 1.6 ANSWER 3 OF 4 MEDLINE on STN AN1999194248 MEDLINE PubMed ID: 10096584 DN Kaposi's sarcoma-associated herpesvirus: a sexually ΤI transmissible infection?. Grulich A E; Olsen S J; Luo K; Hendry O; Cunningham P; Cooper D A; Gao S ΑU J; Chang Y; Moore P S; Kaldor J M National Centre in HIV Epidemiology and Clinical Research, Sydney, CS Australia. Journal of acquired immune deficiency syndromes and human retrovirology: SO official publication of the International Retrovirology Association, (1999 Apr 1) 20 (4) 387-93. Journal code: 9501482. ISSN: 1077-9450. CY United States DTJournal; Article; (JOURNAL ARTICLE) LΑ English Priority Journals; AIDS FS EM199904 ED Entered STN: 19990504 Last Updated on STN: 19990504 Entered Medline: 19990420 AB We examined sexual behavior as a risk factor for Kaposi's sarcoma-associated herpesvirus (KSHV) infection and examined the relation between KSHV seropositivity and development of KS in cross-sectional and cohort studies of 130 homosexual men diagnosed with AIDS in Sydney, Australia during the period from 1991 to 1993. KSHV serology was measured using antibody tests to latency-associated nuclear antigen (LANA) and lytically expressed open reading frame (ORF) 65.2. cross-sectional analysis, 52% (68) of study subjects were KSHV-seropositive by either assay. KSHV-seropositive men were significantly more likely to be seropositive to both herpes simplex type 2 (odds ratio [OR] 3.0; 95% confidence interval [CI], 1.2-7.5 for LANA and OR 2.8; 95% CI, 1.3-6.0 for ORF 65) and hepatitis A virus (OR 2.2; 95% CI, 1.1-4.5 for ORF 65). KSHV-seropositive men reported nonsignificantly more casual sexual partners and were nonsignificantly more likely to report insertive oroanal contact with casual partners. These data suggest that KSHV might be sexually transmitted among homosexual men. Men were observed until October 1996 for development of Those seropositive to either KSHV assay at baseline were more likely than the seronegative to develop KS during follow-up (rate ratio [RR] 4.4; 95% CI, 1.9-10.2). Of those seropositive for KSHV, 53% developed KS. Check Tags: Human; Male; Support, Non-U.S. Gov't AIDS-Related Opportunistic Infections: BL, blood AIDS-Related Opportunistic Infections: IM, immunology AIDS-Related Opportunistic Infections: PP, physiopathology *AIDS-Related Opportunistic Infections: TM, transmission Cross-Sectional Studies *Herpesvirus 8, Human Prospective Studies Risk Factors Sarcoma, Kaposi: BL, blood Sarcoma, Kaposi: IM, immunology Sarcoma, Kaposi: PP, physiopathology *Sarcoma, Kaposi: VI, virology Sexually Transmitted Diseases, Viral: CO, complications *Sexually Transmitted Diseases, Viral: TM, transmission Sexually Transmitted Diseases, Viral: VI, virology

L6 ANSWER 4 OF 4 MEDLINE on STN

AN 1999099035 MEDLINE

DN PubMed ID: 9882349

TI Characterization and cell cycle regulation of the major **Kaposi'**s sarcoma-associated herpesvirus (human herpesvirus 8) latent genes and their promoter.

AU Sarid R; Wiezorek J S; Moore P S; Chang Y

CS Department of Pathology, College of Physicians and Surgeons, Columbia University, New York, New York, 10032, USA.

NC CA67391 (NCI) CA73564 (NCI)

SO Journal of virology, (1999 Feb) 73 (2) 1438-46. Journal code: 0113724. ISSN: 0022-538X.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals; AIDS

EM 199902

ED Entered STN: 19990301 Last Updated on STN: 19990301 Entered Medline: 19990218

Retinoblastoma tumor suppressor protein (pRB) inhibition by tumor virus AΒ oncoproteins has been attributed to the need for these viruses to promote lytic viral nucleic acid synthesis by unscheduled entry into the S phase of the cell cycle. Kaposi's sarcoma-associated herpesvirus (KSHV or HHV8) encodes a functional cyclin (vCYC) which is expressed during latency and can direct phosphorylation of pRB. We mapped the two major latent transcripts encoding vCYC, latent transcript 1 (LT1) and LT2, by cDNA sequencing, 5' rapid amplification of cDNA ends, and primer extension analyses. Both LT1 and LT2 transcripts are spliced, originate from the same start site, and encode ORF K13 (vFLIP) as well as ORF72 (vCYC). The latency-associated nuclear antigen (LANA, ORF73) is encoded by LT1 but spliced from LT2. While differential expression of the two transcripts was not found, the promoter controlling LT1/LT2 transcription is regulated in a cell cycle-dependent manner. Activities of both KSHV LT1/LT2 and huCYC D1 luciferase promoter reporters transfected into NIH 3T3 cells increase 11- and 4-fold, respectively, after release from cell cycle arrest by serum starvation. Further, vCYC and huCYC D2 mRNA levels are low in naturally infected BCBL-1 cells arrested in late G1 with L-mimosine but increase in parallel during a 24-h period after release from cell cycle arrest. Cell cycle regulation of KSHV vCYC expression mimics cellular D cyclin regulation and may maintain infected cell cycling. This is consistent with an alternative hypothesis that tumor viruses have developed specific responses to innate cellular defenses against latent virus infection that include pRB-induced cell cycle arrest.

CT Check Tags: Human; Support, U.S. Gov't, P.H.S. 3T3 Cells
Animals

Base Sequence

```
L10 ANSWER 6 OF 10
                        MEDLINE on STN
ΑN
     2001485550
                    MEDLINE
     PubMed ID: 11527803
DN
ΤI
     Comparison of serologic assays for detection of antibodies
     against human herpesvirus 8.
     Corchero J L; Mar E C; Spira T J; Pellett P E; Inoue N
ΑU
     Division of Viral and Rickettsial Diseases, Centers for Disease Control
CS
     and Prevention, 1600 Clifton Road, Atlanta, GA 30333, USA.
     Clinical and diagnostic laboratory immunology, (2001 Sep) 8 (5) 913-21.
SO
     Journal code: 9421292. ISSN: 1071-412X.
     United States
CY
     Journal; Article; (JOURNAL ARTICLE)
DT
LΑ
     English
FS
     Priority Journals
EM
     200112
     Entered STN: 20010903
ED
     Last Updated on STN: 20020122
     Entered Medline: 20011204
     Improvement of serologic assays for detection of antibodies
AΒ
     against human herpesvirus 8 (HHV-8) is critical to
     better understand its epidemiology and biology. We produced the
     HHV-8 latent (ORF73) and lytic (ORF65, K8.1,
     and glycoprotein B) antigens in the Semliki Forest virus system and
     evaluated their performance in immunofluorescence assays (IFAs) and
     enzyme-linked immunosorbent assays (ELISAs). These assays were compared
     with other latent antigen-based assays, including an IFA based on primary
     effusion lymphoma (PEL) cells and an ELISA based on bacterially expressed
     ORF73 antigen, as well as with other lytic antigen-based assays,
     including an IFA based on induced PEL cells, a commercial ELISA based on
     purified virions, and ELISAs based on K8.1- and ORF65-derived
     oligopeptides. We used a panel of 180 serum specimens obtained from three
     groups expected to have high, intermediate, and low HHV-
     8 prevalences. Using three different evaluation methods, we found
     that (i) the performances of the lytic antigen-based ELISAs were almost
     equivalent, (ii) the lytic antigen-based assays were more sensitive than
     the latent antigen-based assays, and (iii) in general, IFAs were more
     sensitive than ELISAs based on the same open reading frame. We also found
     that serum specimens from healthy individuals contained antibodies
     cross-reactive with HHV-8 glycoprotein B that can
     potentially cause false-positive reactions in lytic PEL-based IFAs.
     Although this is not a substantial problem in most epidemiologic studies,
     it may confound the interpretation of data in studies that require high
     assay specificity. Because the K8.1-based IFA provides sensitivity
     similar to that of lytic PEL-based IFAs and improved specificity, it can
     be a useful alternative to the PEL-based IFAs.
     Check Tags: Comparative Study; Human; Support, Non-U.S. Gov't; Support,
CT
     U.S. Gov't, P.H.S.
       *Antibodies, Viral: BI, biosynthesis
        Antibodies, Viral: ME, metabolism
      Antigens, Viral: BI, biosynthesis
      Cell Line
      Enzyme-Linked Immunosorbent Assay: MT, methods
        Fluorescent Antibody Technique: MT, methods
      Glycoproteins: AN, analysis
     *Herpesviridae Infections: BL, blood
      Herpesviridae Infections: DI, diagnosis
     *Herpesvirus 8, Human: IM, immunology
      Herpesvirus 8, Human: IP, isolation & purification
```

Nuclear Proteins: BI, biosynthesis Semliki forest virus: IM, immunology Viral Envelope Proteins: IM, immunology *Viral Proteins

0 (Antibodies, Viral); 0 (Antigens, Viral); 0 (Glycoproteins); 0 CN (K8.1 protein, Human herpesvirus 8); 0 (Nuclear Proteins); 0 (Viral Envelope Proteins); 0 (Viral Proteins); 0 (glycoprotein B, human herpesvirus 8); 0 (latency-associated nuclear antigen)

- MEDLINE on STN L10 ANSWER 7 OF 10
- 2000261951 MEDLINE AN
- PubMed ID: 10799457 DN
- New immunofluorescence assays for detection of Human herpesvirus TΙ 8-specific antibodies.
- Inoue N; Mar E C; Dollard S C; Pau C P; Zheng Q; Pellett P E ΑU
- Division of Viral and Rickettsial Diseases, STD, and TB Laboratory Research, National Center for Infectious Diseases, Centers for Disease Control and Prevention, Atlanta, Georgia 30333, USA.. nai0@cdc.gov
- Clinical and diagnostic laboratory immunology, (2000 May) 7 (3) 427-35. SO Journal code: 9421292. ISSN: 1071-412X.
- CY United States
- DTJournal; Article; (JOURNAL ARTICLE)
- LΆ English
- FS Priority Journals; AIDS
- 200006 EM
- Entered STN: 20000706 ED

Last Updated on STN: 20000706

Entered Medline: 20000627

Several assays have been developed for detection of immunoglobulin G AΒ antibodies to Human herpesvirus 8 (HHV-8),

including immunofluorescence assays (IFAs) and enzyme-linked immunosorbent assays (ELISAs). However, the specificity and sensitivity of these assays are not completely defined due to the lack of a "gold standard." Although IFAs based on primary effusion lymphoma (PEL) cell lines are used widely, the assays can be confounded by nonspecific reactions against cellular components and potential cross-reaction with antibodies against other herpesviruses. To provide more reliable IFAs, we established recombinant Semliki Forest viruses (rSFVs) expressing the HHV-8-specific proteins ORF73 and K8.1 and used BHK-21 cells infected with these rSFVs for IFA (ORF73-IFA and K8.1-IFA). Expression of the HHV-8-specific proteins at very high levels by the rSFV system allowed easy scoring for IFA and thereby increased specificity. The rSFV system also allowed detection of antibodies against glycosylation-dependent epitopes of K8.1. Titers measured by rSFV-based IFAs and PEL-based IFAs correlated well (correlation coefficients of >0.9), and concordances of seroreactivities between rSFV-based and PEL-based IFAs were >97% (kappa > 0.93). K8.1-IFA was more sensitive than either ORF73-IFA or peptide ELISAs. Using PEL-based lytic IFA as a reference assay, the sensitivity and specificity of K8.1-IFA were estimated to be 94 and 100%, respectively. HHV-8 prevalences determined by K8.1-IFA among the human immunodeficiency virus (HIV)-positive (HIV(+)) Kaposi's sarcoma (KS) patients, HIV(+) KS(-) patients, and healthy controls were 100, 65, and 6.7%, respectively, which were consistent with prior reports. Therefore, our rSFV-based IFAs may provide a specific and sensitive method for use in epidemiology studies. In addition, they will provide a basis for further development of diagnostic tests for HHV-8 infection. Check Tags: Comparative Study; Human

CT

Antibodies, Viral: AN, analysis

Cell Line

Cross Reactions

Enzyme-Linked Immunosorbent Assay: MT, methods Enzyme-Linked Immunosorbent Assay: ST, standards Epitopes: IM, immunology

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Epitopes: ME, metabolism
        Fluorescent Antibody Technique
      Gene Expression Regulation, Viral
     *Glycoproteins: AN, analysis
      Glycoproteins: GE, genetics
      Glycoproteins: IM, immunology
      Glycosylation
      Hamsters
     *Herpesviridae Infections: DI, diagnosis
      Herpesviridae Infections: EP, epidemiology
      Herpesviridae Infections: IM, immunology
      Herpesvirus 8, Human: GE, genetics
      Herpesvirus 8, Human: IM, immunology
     *Herpesvirus 8, Human: IP, isolation & purification
      Kidney: CY, cytology
      Molecular Biology: MT, methods
      Molecular Biology: ST, standards
     *Nuclear Proteins: AN, analysis
      Nuclear Proteins: GE, genetics
      Nuclear Proteins: IM, immunology
     *Phosphoproteins
      Rabbits
      Semliki forest virus
      Sensitivity and Specificity
      Seroepidemiologic Studies
     *Viral Proteins
     0 (Antibodies, Viral); 0 (Epitopes); 0 (Glycoproteins); 0 (K8.1
CN
     protein, Human herpesvirus 8); 0 (Nuclear Proteins); 0 (Phosphoproteins);
     0 (Viral Proteins); 0 (latent nuclear antigen (LNA))
L10 ANSWER 8 OF 10
                        MEDLINE on STN
AN
     1999324295
                    MEDITNE
     PubMed ID: 10393835
DN
    High expression of HHV-8-encoded ORF73
     protein in spindle-shaped cells of Kaposi's sarcoma.
     Katano H; Sato Y; Kurata T; Mori S; Sata T
     Department of Pathology, National Institute of Infectious Diseases,
     University of Tokyo, Tokyo, Japan.
    American journal of pathology, (1999 Jul) 155 (1) 47-52.
     Journal code: 0370502. ISSN: 0002-9440.
CY
    United States
DT
    Journal; Article; (JOURNAL ARTICLE)
LΑ
    English
FS
    Abridged Index Medicus Journals; Priority Journals; AIDS
EM
    199907
    Entered STN: 19990806
    Last Updated on STN: 19990806
     Entered Medline: 19990726
    Human herpesvirus 8 (HHV-8) has been demonstrated
     previously in Kaposi's sarcoma (KS) tissues by immunohistochemistry, in
     situ polymerase chain reaction, and in situ hybridization. The
     HHV-8-encoded protein ORF73 is a 222- or
     234-kd protein named latent nuclear antigen (LNA) or latency-associated
    nuclear antigen (LANA) that is identified in HHV-8
     -infected cell lines by immunofluorescence assay. In the present study, a
     rabbit antibody against a recombinant ORF73 protein
    was developed. Immunofluorescent staining of a HHV-8
     -infected cell line, TY-1, showed that the staining pattern of the anti-
    ORF73 antibody overlapped completely the LANA staining
    pattern obtained using KS patients' sera. Immunoblotting analysis showed
    that the anti-ORF73 antibody reacted specifically with
    222- and 234-kd proteins that were present in TY-1 and BCBL-1 cell
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TI

ΑU

CS

ED

AΒ

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Immunohistochemistry using a catalyzed signal amplification
     system demonstrated that the anti-ORF73 antibody
     reacted exclusively with the majority of KS spindle-shaped cells, showing
     a nuclear dot-like staining pattern. Some of the ORF73
     protein-positive cells also expressed CD34 and vimentin but not CD68 or
     factor-VIII-related antigen. These data indicate that the anti-
     ORF73 antibody recognizes LANA and that most KS cells
     are infected with HHV-8 in the latent phase. Our
     findings also suggest that ORF73 protein plays an important role
     in the pathogenesis of KS.
CT
     Check Tags: Human; Support, Non-U.S. Gov't
      Animals
      Blotting, Western
      Cell Line: ME, metabolism
      Cell Line: VI, virology
        Fluorescent Antibody Technique
      Herpesviridae Infections: ME, metabolism
      Herpesvirus 8, Human
      Immunohistochemistry
     *Nuclear Proteins: ME, metabolism
     *Phosphoproteins
      Rabbits
     *Sarcoma, Kaposi: ME, metabolism
      Sarcoma, Kaposi: PA, pathology
     0 (Nuclear Proteins); 0 (Phosphoproteins); 0 (latent nuclear antigen
CN
     (LNA))
                        MEDLINE on STN
L10 ANSWER 9 OF 10
     1999208833
                    MEDLINE
ΑN
     PubMed ID: 10191203
DN
     Comparison of human sera reactivities in immunoblots with recombinant
TΙ
     human herpesvirus (HHV)-8 proteins associated with the
     latent (ORF73) and lytic (ORFs 65, K8.1A, and K8.1B) replicative
     cycles and in immunofluorescence assays with HHV-8
     -infected BCBL-1 cells.
     Zhu L; Wang R; Sweat A; Goldstein E; Horvat R; Chandran B
ΑU
     Division of Infectious Diseases, The University of Kansas Medical Center,
CS
     Kansas City, Kansas, 66160, USA.
     CA75911 (NCI)
NC
     CA82056 (NCI)
     R18906
     Virology, (1999 Apr 10) 256 (2) 381-92.
SO
     Journal code: 0110674. ISSN: 0042-6822.
CY
     United States
DT
     Journal; Article; (JOURNAL ARTICLE)
LΑ
     English
     Priority Journals; AIDS
FS
EΜ
     199906
ED
     Entered STN: 19990614
     Last Updated on STN: 19990614
     Entered Medline: 19990601
AB
     The development of reliable, sensitive, and specific serological methods
     for the detection of human herpesvirus-8 (HHV-8)
     antibodies is critical for a thorough understanding of HHV
     -8 prevalence and pathogenesis. To evaluate the potential
     usefulness of HHV-8 proteins in measuring the
     responses against both latent and lytic antigens, we selected 1 latent
     [open reading frame (ORF) 73] antigen and 3 HHV-8
     lytic antigens (ORFs 65, K8.1A, and K8.1B) previously identified as
     immunogenic [Virology (1998) 243, 208-217]. Full-length genomic ORF 73
     and full-length ORFs 65, K8.1A, and K8.1B from the cDNA clones were
     cloned, expressed in bacterial and baculovirus-insect cell expression
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systems, and purified as GST fusion proteins. These recombinant proteins
were used in Western blot reactions to test sera from 104 human
immunodeficiency virus (HIV) +/Kaposi's sarcoma (KS) + homosexual men, 77
HIV+/KS- homosexual men, and 84 age-matched HIV-/KS- men. These sera were
also tested in immunofluorescence assays (IFAs) with uninduced and
12-O-tetradecanoylphorbol-13-acetate-induced B cell lymphoma-1 cells to
detect antibodies against latency-associated nuclear antigens
(LANA) and antibodies against lytic antigens (cytoplasmic
fluorescence). These sera exhibited differential reactivities reflecting
different titers of antibodies against HHV-8
proteins, and variable reactivities were seen more commonly with the sera
from HIV-/KS- adult men. In the Western blot assay, 89% (93 of 104) of
HIV+/KS + sera, 60% (46 of 77) of HIV+/KS- sera, and 7% (6 of 84) HIV+/KS-
sera were reactive with both latent and lytic recombinant antigens.
Western blot reactions with ORF 73 protein were more sensitive than
LANA-IFA results. The lytic IFA and lytic Western blot (ORFs 65 and
K8.1A) assays were more sensitive than the ORF 73 Western blots and
LANA-IFA. With an exception of 2 sera from the HIV-/KS- group, all sera
positive for lytic IFA antibodies and ORF 65 and K8.1A
antibodies were also positive for latent antibodies.
With few exceptions, sera positive for ORF 65 antibodies were
also positive for K8.1A antibodies, and sera recognized the
K8.1A protein more often than the K8.1B protein. There is a high degree
of concordance between IFA and Western blot reactions, suggesting that
this panel of HHV-8 recombinant proteins could detect
a majority of the HHV-8-seropositive individuals.
These results suggest that IFA followed by confirmation with the Western
blot reactions with a panel of latent and lytic immunogenic antigens would
provide a reliable, sensitive, and specific method for the detection of
HHV-8 antibodies.
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Check Tags: Comparative Study; Human; Male; Support, Non-U.S. Gov't;
Support, U.S. Gov't, P.H.S.
 Adolescent
 Adult
   Antibodies, Viral: BL, blood
  *Antibodies, Viral: IM, immunology
 Antigens, Viral: GE, genetics
*Antigens, Viral: IM, immunology
 Blotting, Western
 Cell Line
   Fluorescent Antibody Technique, Indirect
 Gene Expression
 Glutathione Transferase: GE, genetics
 Glutathione Transferase: IM, immunology
 Glycoproteins: GE, genetics
*Glycoproteins: IM, immunology
 HIV Infections: IM, immunology
Herpesvirus 8, Human: GE, genetics
*Herpesvirus 8, Human: IM, immunology
 Immunoblotting
Middle Aged
Nuclear Proteins: GE, genetics
*Nuclear Proteins: IM, immunology
Open Reading Frames
*Phosphoproteins
Recombinant Fusion Proteins: GE, genetics
 Recombinant Fusion Proteins: IM, immunology
Recombination, Genetic
Sarcoma, Kaposi: BL, blood
*Sarcoma, Kaposi: IM, immunology
Sarcoma, Kaposi: VI, virology
```

CT

*Viral Proteins: IM, immunology Virus Latency Virus Replication 0 (Antibodies, Viral); 0 (Antigens, Viral); 0 (Glycoproteins); 0 (K8.1 protein, Human herpesvirus 8); 0 (Nuclear Proteins); 0 (ORF65 protein, human herpesvirus 8); 0 (Phosphoproteins); 0 (Recombinant Fusion Proteins); 0 (Viral Proteins); 0 (latent nuclear antigen (LNA)); EC 2.5.1.18 (Glutathione Transferase) L10 ANSWER 10 OF 10 MEDLINE on STN AN1999090765 MEDLINE DN PubMed ID: 9875587 Seroconversion for human herpesvirus 8 during HIV infection is highly TIpredictive of Kaposi's sarcoma. ΑU Renwick N; Halaby T; Weverling G J; Dukers N H; Simpson G R; Coutinho R A; Lange J M; Schulz T F; Goudsmit J Department of Human Retrovirology, Academic Medical Centre, University of CS Amsterdam, The Netherlands. AIDS (London, England), (1998 Dec 24) 12 (18) 2481-8. SO Journal code: 8710219. ISSN: 0269-9370. CY ENGLAND: United Kingdom Journal; Article; (JOURNAL ARTICLE) DTLА English FS Priority Journals; AIDS EM 199907 ED Entered STN: 19990727 Last Updated on STN: 19990727 Entered Medline: 19990714 AΒ BACKGROUND: The finding of antibodies against human herpesvirus 8 (HHV-8) is associated with the occurrence of Kaposi's sarcoma in persons infected with HIV. However, the predictive value of HHV-8 antibodies for Kaposi's sarcoma in HIV infection is unknown. METHODS: The Amsterdam Cohort Studies on HIV infection and AIDS started in 1984 for homosexual men and in 1985 for injecting drug users. Serum samples from 1459 homosexual men and 1167 drug users were tested for antibodies to recombinant HHV-8 lytic-phase capsid (ORF65) antigen and latent-phase nuclear (ORF73) antigen. Individuals were retrospectively identified as HHV-8-positive or HHV-8-negative at enrolment or HHV-8 seroconverter during the study. Kaposi's sarcoma-free survival time was compared between HIV-infected men who were positive for HHV-8 at enrolment and those who later seroconverted for HHV -8. Hazard ratios were estimated for Kaposi's sarcoma, lymphoma, and opportunistic infection according to the HHV-8 serostatus. RESULTS: The incidence of HHV-8 seroconversion among drugs users was 0.7 per 100 person-years based on 31 seroconversions, whereas an incidence of 3.6 was found among homosexual men based on 215 seroconversions. The hazard ratio for Kaposi's sarcoma was 3.15 (95% CI: 1.89-5.25) in HIV-infected individuals if HHV-8 antibodies were present either at enrolment or at HIV seroconversion. In HIV-infected persons who later seroconverted to HHV-8, Kaposi's sarcoma developed more rapidly: hazard ratio of 5.04 (95% CI: 2.94-8.64), an additional risk of 1.60 (95% CI: 1.01-2.53; P = 0.04). Time-dependent adjustment for CD4+ cell count and HIV RNA had no impact on the additional risk, although the CD4+ cell count was an independent risk factor for Kaposi's sarcoma. HHV-8 infection did not increase the risk of AIDS-related lymphoma or opportunistic infections. CONCLUSIONS: The incidence of HHV-8 infection is higher in homosexual men than in drug users. The presence of HHV-8 antibodies in HIV-infected

Viral Proteins: GE, genetics

persons increases the risk of Kaposi's sarcoma. Among HIV-infected persons, those who subsequently seroconvert for HHV-8 are at highest risk. These results strongly confirm the causal role of HHV-8 in Kaposi's sarcoma and emphasize the clinical relevance of HHV-8 seroconversion before and after the HIV infection.

CT Check Tags: Female; Human; Male; Support, Non-U.S. Gov't Adult

*Antibodies, Viral: BL, blood Antigens, Viral: IM, immunology

CD4 Lymphocyte Count

Capsid: IM, immunology

*HIV Infections: CO, complications

HIV Infections: IM, immunology

*HIV Infections: VI, virology

HIV-1: IP, isolation & purification

*Herpesvirus 8, Human: IM, immunology

Homosexuality, Male

Immunoenzyme Techniques

Middle Aged

RNA, Viral: BL, blood

Retrospective Studies

Risk Factors

*Sarcoma, Kaposi: ET, etiology Sarcoma, Kaposi: VI, virology

Substance Abuse, Intravenous

(FILE 'HOME' ENTERED AT 13:05:11 ON 08 JUN 2004)

	FILE 'MEDLI	N	E' ENTERED AT 13:05:22 ON 08 JUN 2004
L1	77	S	LANA AND KAPOSI?
L2	662354	S	ANTIBOD?
L3	24	S	L1 AND L2
		Ε	CHANG Y/AU
L4	310	S	E3
L5	52	S	KAPOSI? AND L4
L6	4	S	L1 AND L5
L7	46	S	ORF73
T8	16	S	ANTIBO? AND L7
L9	971	S	HHV-8
L10	10	S	L8 AND L9

WEST Search History

Hide Items Restore Clear Cancel

DATE: Tuesday, June 08, 2004

Hide?	Hit Count							
DB=DWPI; PLUR=YES; OP=ADJ								
	L7	Sato.in. and HHV-8	0					
	L6	Sato.in.	17375					
	L5	Sato.in. and Kaposi	0					
DB=USPT; PLUR=YES; OP=ADJ								
	L4	Sato.in. and Kaposi	3					
	L3	Sato.in. and virus	121					
	L2	Sato.in. and HHV-8	0					
	L1	Sato.in.	15866					

END OF SEARCH HISTORY

WEST Search History

DATE: Tuesday, June 08, 2004

Hide?	Hit Count								
DB=PGPB; PLUR=YES; OP=ADJ									
	L16	LANA and kapos? and antibodies	9						
	DB=EPAB; PLUR=YES; OP=ADJ								
	L15	LANA and kapos? and antibodies	0						
	DB=JPAB; PLUR=YES; OP=ADJ								
	L14	LANA and kapos? and antibodies	0						
	DB=DV	VPI; PLUR=YES; OP=ADJ							
	L13	LANA and kapos? and antibodies	1						
	DB=US	SPT; PLUR=YES; OP=ADJ	•						
	L12	ORF73 and HHV-8	3						
	L11	ORF73 and kapos? and antibodies.clm.	2						
	L10	ORF73 and kapos? and antibodies	14						
	L9	ORF73 and kapos? antibodies	0						
	L8	ORF73 and antibodies	19						
	L7	ORF37 and antibodies	8						
	L6	LANA2 and antibodies	1						
	L5	LANA-2 and antibodies	0						
	L4	LANA and kapos? and antibodies	9						
	L3	LANA and kapos?	9						
	L2	LANA and kaposis	9						
	L1	LANA	334						

END OF SEARCH HISTORY

Hit List

Clear Generate Collection Print Fwd Refs Bkwd Refs
Generate OACS

Search Results - Record(s) 1 through 9 of 9 returned.

☐ 1. Document ID: US 6669939 B1

L4: Entry 1 of 9

File: USPT

Dec 30, 2003

US-PAT-NO: 6669939

DOCUMENT-IDENTIFIER: US 6669939 B1

TITLE: (Poly)peptides which represent the epitopes of the human herpes virus type 8

DATE-ISSUED: December 30, 2003

INVENTOR-INFORMATION:

NAME

CITY

STATE ZIP CODE

COUNTRY

Schatz; Octavian

Altomunster

DE

Haas; Jurgen

Munich

DE

US-CL-CURRENT: 424/185.1; 424/186.1, 424/192.1, 424/199.1, 424/229.1, 435/4, 435/5, 435/69.1, 435/7.1, 435/7.9, 435/975

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw, De
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_		_										
	2. L	<b>O</b> ocumen	t ID:	US 66	53465 B2							
L4: E	ntry	2 of 9				Fi	le: USE	$^{ m T}$		Nov	25,	2003

US-PAT-NO: 6653465

DOCUMENT-IDENTIFIER: US 6653465 B2

TITLE: Spliced gene of KSHV / HHV8, its promoter and monoclonal antibodies specific

for LANA2

DATE-ISSUED: November 25, 2003

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Chang; Yuan

Irvington

NY

Moore; Patrick S.

Irvington

NY

US-CL-CURRENT: <u>536/24.1</u>; <u>424/199.1</u>, <u>424/229.1</u>, <u>435/325</u>, <u>435/91.1</u>

Full Title Citation Front Review Classification Date Reference (1995)

☐ 3. Document ID: US 6642008 B1

L4: Entry 3 of 9

File: USPT

Nov 4, 2003

US-PAT-NO: 6642008

DOCUMENT-IDENTIFIER: US 6642008 B1

TITLE: Assays and therapies for latent viral infection

DATE-ISSUED: November 4, 2003

INVENTOR-INFORMATION:

NAME

CITY

STATE ZIP CODE

COUNTRY

Harley; John B.

Edmond

ok ok

James; Judith Ann Kaufman; Kenneth M.

Oklahoma City

Oklahoma City

OK

US-CL-CURRENT: 435/7.1; 435/6, 435/7.94

Full Title Citation Front Review Classification Date Reference Section State Citation Claims KWC Draw. De

☐ 4. Document ID: US 6541253 B2

L4: Entry 4 of 9

File: USPT

Apr 1, 2003

US-PAT-NO: 6541253

DOCUMENT-IDENTIFIER: US 6541253 B2

TITLE: Diagnostics and therapy of diseases associated with HHV-8 infections

DATE-ISSUED: April 1, 2003

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Haas; Juergen

Munich

DE

Kremmer; Elisabeth
Kliche; Stefanie

Freising Munich DE DE

US-CL-CURRENT: 435/332; 435/339, 435/344, 435/5

Full Title Citation Front Review Classification Date Reference Supply 1888 Student Claims KWC Draw, De

☐ 5. Document ID: US 6503513 B2

L4: Entry 5 of 9

File: USPT

Jan 7, 2003

US-PAT-NO: 6503513

DOCUMENT-IDENTIFIER: US 6503513 B2

Page 3 of 5 Record List Display

TITLE: Diagnostics and therapy of diseases associated with HHV-8 infections

DATE-ISSUED: January 7, 2003

INVENTOR-INFORMATION:

CITY STATE ZIP CODE COUNTRY NAME

DE Haas; Juergen Munich Kremmer; Elisabeth Freising DΕ Kliche; Stefanie Munich DE

US-CL-CURRENT: 424/229.1; 424/204.1, 435/5, 435/6, 435/7.1, 530/300, 530/350,

536/23.72

Full Title Citation Front Review Classification Date Reference Claims KWC Draw De ☐ 6. Document ID: US 6482587 B1 L4: Entry 6 of 9 File: USPT Nov 19, 2002

US-PAT-NO: 6482587

DOCUMENT-IDENTIFIER: US 6482587 B1

TITLE: Methods to inhibit or enhance the binding of viral DNA to genomic host DNA

DATE-ISSUED: November 19, 2002

INVENTOR-INFORMATION:

CITY STATE ZIP CODE COUNTRY NAME

Plymouth Robertson; Erle S. Cotter; Murray A.

Ann Arbor MI

US-CL-CURRENT: 435/5; 424/9.2, 435/325, 435/7.21, 530/350

Full Title Citation Front Review Classification Date Reference Claims KWC Drawu De ☐ 7. Document ID: US 6323183 B1 Nov 27, 2001 L4: Entry 7 of 9 File: USPT

MΙ

US-PAT-NO: 6323183

DOCUMENT-IDENTIFIER: US 6323183 B1

TITLE: Composition for and method of treatment using triterpenoids

DATE-ISSUED: November 27, 2001

INVENTOR-INFORMATION:

CITY ZIP CODE COUNTRY NAME STATE

Flore; Ornella New York NY 10021 US-CL-CURRENT: 514/26

Full Title Citation Front Review Classification Date Reference Claims KWC Draw De

□ 8. Document ID: US 6322792 B1

L4: Entry 8 of 9

File: USPT

Nov 27, 2001

US-PAT-NO: 6322792

DOCUMENT-IDENTIFIER: US 6322792 B1

TITLE: Rhadino virus LANA acts in trans on a unit of rhadino virus DNA to mediate

efficient episome persistance

DATE-ISSUED: November 27, 2001

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Kieff; Elliott D.

Brookline

ΜA

02445

Ballestas; Mary E.

Beverly

MA MΆ

Kaye; Kenneth M.

Weston

US-CL-CURRENT: 424/199.1; 424/204.1, 424/229.1, 435/235.1, 435/320.1, 435/325,

<u>435/5</u>, <u>435/69.1</u>, <u>435/69.3</u>, <u>536/23.72</u>

Full Title Citation Front Review Classification Date Reference

Claims KWC Draw De

☐ 9. Document ID: US 6319667 B1

L4: Entry 9 of 9

File: USPT

Nov 20, 2001

US-PAT-NO: 6319667

DOCUMENT-IDENTIFIER: US 6319667 B1

TITLE: Diagnostics and therapy of diseases associated with HHV-8 infections

DATE-ISSUED: November 20, 2001

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Haas; Juergen

Munich

DE

Kremmer; Elisabeth

Freising

DE

Kliche; Stefanie

Munich

DE

US-CL-CURRENT: 435/5; 435/7.1, 435/7.94, 530/300, 530/326, 530/389.1, 530/389.4

Full Title Citation Front Review Classification Date Reference

Claims KMC Draw De

Clear

Generate Collection

Print

Fwd Refs

**Bkwd Refs** 

**Generate OACS**